WHAT IS CLAIMED IS:

1. A method of sterilizing an area using ultraviolet radiation, comprising the steps of:

 (a) causing ultraviolet-C radiation to be emitted from multiple positions within an enclosed area;

 (b) measuring a reflection of ultraviolet-C radiation from the multiple positions within said enclosed area;

 (c) calculating the ultraviolet-C radiation level necessary to sterilize said enclosed area and comparing it with the measured reflected ultraviolet-C radiation; and

 (d) terminating the emission of ultraviolet-C radiation after determining that the required minimum ultraviolet-C radiation has been reflected from the multiple positions within said enclosed area.

2. A method of sterilizing an area using ultraviolet radiation as described in claim 1, wherein motion within said room is detected prior to the initiation of emission of ultraviolet-C radiation.

3. A device for sterilizing an area using ultraviolet radiation, comprising:

 (a) a base;

 (b) a plurality of ultraviolet-C radiation emitters, wherein said plurality of ultraviolet-C radiation emitters are located in at least two places within an enclosed area to be treated, with each of two places remote from each

other, and wherein said ultraviolet-C radiation emitters are directed towards an enclosed area to be treated; and

(c) at least one radiation receiver which receives reflected ultraviolet-C radiation, wherein said receiver measures said reflected ultraviolet-C radiation.

4. A device for sterilizing an area using ultraviolet radiation as described in Claim 3, further comprising a motion detector which communicates with said plurality of ultraviolet-C radiation emitters.

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